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ABSTRACT

This review focuses on empirical studies with pre- and post-test measures of functioning that have attempted to assess the benefits of psychotherapy with schizophrenics. The first part of the review concentrates on various subgroups of schizophrenia, which appear to be influenced by subject variables and manifest clinical symptomatology. The second part of the review deals with instrumentation and methodology issues in outcome research. Various demographic and premorbid characteristics of schizophrenic patients that appear to influence outcome, as well as the means of measuring outcome, are discussed. The impact of the degree of control exercised over treatment variables is also examined. The third part of the review examines the research most directly germane to therapy outcomes. In general, three major modalities are reviewed: individual analytic/dynamic therapy, supportive and other individual therapies, and group approaches to therapy. The review also includes a number of variables that impact therapeutic effectiveness within these modalities. The final part of the review attempts to summarize the various outcome studies. The review notes that the course of schizophrenia appears to be multidetermined and multicausal; that psychotherapy does provide an incremental and durable benefit in the treatment of schizophrenia; and that individual supportive therapy seems to offer the most cost-effective psychotherapy treatment. The effects of therapy process and therapist variables are also discussed. (NB)

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# A REVIEW OF THE LITERATURE CONCERNING THE EFFECTIVENESS OF PSYCHOTHERAPY WITH SCHIZOPHRENICS

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# A REVIEW OF THE LITERATURE CONCERNING THE EFFECTIVENESS OF PSYCHOTHERAPY WITH SCHIZOPHRENICS

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A Doctoral Research Paper

Presented to

the Faculty of the Rosemead School of Psychology

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In Partial Fulfillment

of the Requirements for the Degree

Doctor of Psychology

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by

Michael Paul Quirk

May 1992

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ABSTRACT

A REVIEW OF THE LITERATURE CONCERNING THE EFFECTIVENESS OF PSYCHOTHERAPY WITH SCHIZOPHRENICS

by

Michael Paul Quirk

The effectiveness of psychotherapy with schizophrenics is addressed by first examining issues related to classification, diagnosis and course. Classifications that emphasize subject variables and clinical symptomology appear to effectively define different subgroups of schizophrenics. Various diagnostic systems that attempt to define schizophrenics often demonstrate poor agreement, thereby distorting comparability of studies. The course of schizophrenia appears to be multidetermined and multicausal. Research indicates that psychotherapy does provide an incremental and durable benefit in the treatment of schizophrenics. Individual, supportive therapy seems to offer the most cost-effective psychotherapy treatment. Additionally, the effect of therapy process and therapist variables are discussed.

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# A REVIEW OF THE LITERATURE CONCERNING THE EFFECTIVENESS OF PSYCHOTHERAPY WITH SCHIZOPHRENICS

## Introduction

Among the currently identified mental disorders, schizophrenia remains one of the most crippling and least understood. Current estimates of lifetime prevalence rates range as high as 1%. With current treatments, approximately 30% of those diagnosed as schizophrenic will spend a lifetime of institutional care with constant impairment in social, cognitive, affective and occupational functioning. For another 30% there will be periodic episodes of major impairment interspersed with periods of somewhat reduced functioning (Davis, Comaty, & Janicak, 1988).

Given both the intensity and the longevity of the impairment associated with schizophrenia, considerable effort has been exerted in helping its victims. The use of modern psychotropic drugs has done much to help schizophrenic individuals; however, these medical interventions are not curative in themselves. Schizophrenia inevitably entails many psychosocial adjustments, and psychotherapy can be helpful. In addition, many mental health professionals believe that psychotherapy can be an effective change factor in the lives of schizophrenics.

This review focuses on empirical studies with pre- and post measures of functioning that have attempted to assess the benefits of psychotherapy with schizophrenics.

The effectiveness of individual psychotherapy with schizophrenics was previously addressed in two different literature reviews by Mosher and Keith (1980), and Karon and Vandenbos (1981). Karon and Vandenbos reported that the first study on the effectiveness of psychotherapy was conducted in 1953 by Rosen. From 1954 to 1977 six more studies were completed. Mosher and Keith's (1980) review of five of these studies indicated that psychotherapy plus drugs was the most effective treatment in each of the studies. However, in three of the studies the incremental benefits of psychotherapy appeared to be small.

In Karon and Vandenbos' (1981) review of six of the studies, they suggested a number of reasons why incremental benefits of psychotherapy appear to be insignificant. They believed that a combination of inexperienced therapists and supervisors, and a lack of motivation to do psychotherapy on the part of therapists, resulted in reduced effectiveness. In two studies, the Illinois Project and the Michigan State Project, they noted that the magnitude of the incremental improvement was considerably larger than in the other studies. Karon and Vandenbos further explained that these studies were conducted using experienced therapists who believed that psychotherapy is indeed effective. In

addition, they felt that the design of these two studies was superior, especially in areas impacting internal validity. Given the political and economic issues involved in the treatment of schizophrenics, it seems possible that researchers may have multiple goals which, in turn, could influence design and outcome issues.

Carpenter (1986) warned against the temptation to oversimplify schizophrenia. Causes and courses of the disorder appear to have multiple determinants. As a result, it is misleading to examine psychotherapy effectiveness in isolation. Some understanding of causes, classification and diagnosis, and research design issues is necessary to appropriately assess therapy effectiveness.

The intent of the present review reflects an attempt to provide a broad picture of the issues related to the conduct of psychotherapy with schizophrenics. The first part will focus on various subgroups of schizophrenia, which appear to be influenced by subject variables and manifest clinical symptomology.

The second part of this review deals with instrumentation and methodology issues in outcome research. Various demographic and premorbid characteristics of schizophrenic patients that appear to influence outcome, as well as the means of measuring outcome, are discussed. The impact of the degree of control exercised over treatment variables is also examined.

The third part of this review examines the research most directly germane to therapy outcome. In general, three major modalities are reviewed. These modalities include individual analytic/dynamic therapy, supportive and other individual therapies, and group approaches to therapy. The review also includes a number of variables that impact therapeutic effectiveness within these modalities.

The final part of this review attempts to summarize the various outcome studies. These studies are suggestive of future directions in both therapy and research on therapeutic effectiveness.

## Definitions and Categories of Schizophrenia

Currently there are two widely used approaches to categorizing and defining schizophrenic patients. One approach looks at various characteristics of the patients. These characteristics include psychosocial, behavioral, cognitive, and medical variables. The second is a more traditional examination of observed clinical symptoms. Additionally, there may be processes inherent in schizophrenia that contribute to variations in the categories suggested by the two approaches to categorization.

The major reason for examining various categories of schizophrenia lies in the hope that treatment approaches can be tailored to individual patient needs (Carpenter, 1986).

It is also possible that various categories of schizophrenia may define patient populations that have differential outcomes, regardless of treatment approach, when compared to other patient groups (Allen, Tarnoff, Kearns, & Coyne, 1986).

## Categorization by Subject Variables

### Biological and Early Development Factors

Feinsilver (1986) proposed a model of psychobiological vulnerability which suggests the primary importance of early life factors. Specifically, he believed that individuals who become schizophrenic have a high level of vulnerability to breakdown due to parental and genetic causes. Neurobiological weaknesses combined with inadequate parenting cause the individual to develop maladaptive solutions to the normal developmental tasks of childhood. Feinsilver inferred that if these solutions are extremely maladaptive, the individual functions with an undifferentiated self, and is at risk for manifesting schizophrenic processes.

While the paper by Feinsilver (1986) on early life variables was conceptual in nature, Lewine, Watt, and Fryer (1978) attempted to empirically examine the relationship between childhood social competence and psychiatric outcomes. If social competence is an important developmental task, then it might be expected that social

competence would be related to severity and duration of schizophrenic symptoms. However, their data did not support this relationship. While they did find significant differences in social competence between schizoaffectives, paranoid schizophrenics and undifferentiated schizophrenics, the differences in psychiatric outcomes were not significant between these groups. Lewine et al. concluded that developmental history does influence the type of symptomatology, but does not necessarily influence outcomes.

The work of Lewine et al. (1978) was primarily focused on psychosocial factors. However, they did not exclude biological influences that reciprocally impact psychosocial factors. Their decisions on instrumentation reflect a functional orientation that primarily uses psychological data. Conversely, Gottesman, McGuffin, and Farmer (1987) focused on biological factors while still acknowledging psychosocial influences in schizophrenia. Their focus is primarily in the area of genetics. In their paper they reviewed the results of various family and twin studies of schizophrenics and found a composite 44.3% concordance rate for monozygotic twins. This is significantly higher than the composite 12.1% rate for dyzygotic twins. These results, according to the authors, suggest a strong genetic component in schizophrenia.

A number of problems exist in finding the exact components of this genetic contribution. Gottesman et al.

(1987) mentioned diagnostic inconsistencies and unknown levels of etiological heterogeneity as major problems. One promising area of investigation, ventricle-brain ratio measurement, has recently yielded inconsistent results (e.g., chronic schizophrenics do not consistently have larger ventricle-brain ratios). Another area of interest involves the genetic marker known as HLA A9. This marker appears to be significantly related to paranoid schizophrenia. However, the existence of this marker increases the frequency by only 60%. Gottesman et al. remain optimistic about genetic investigations but admit that progress to date has been minimal, and no conclusive findings have emerged.

Pre-Morbid Social Factors

One of the long term implications of the vulnerability model (Feinsilver, 1986) is the possibility that some schizophrenics are more likely to have better outcomes because their early developmental influences have provided better adapting skills. These individuals with better outcomes should exhibit a fairly consistent pattern of higher functioning throughout their premorbid years. However, measurement of early developmental histories for adult patients is problematic.

Rather than attempting to assess early development, Fenton and McGlashan (1987) focused on more immediate premorbid characteristics. They isolated a number of

individuals who achieved good outcomes from acute schizophrenia with little or no psychotropic medication. These individuals were assessed on a number of variables related to their premorbid social functioning. The investigators compared these ratings to a control group of mixed outcome schizophrenics. In their four major variables, the good outcome group scored significantly higher than the control group. The most powerful distinguishing variable was the degree to which the patients had acquired interests and skills to sustain a meaningful life path. While this variable accounted for only one quarter of the outcome variance, it still is suggestive of an important sub-group of schizophrenics who may have good outcomes independent of treatment choices.

Westermeyer and Harrow (1984) correlated a number of variables with eventual outcome for a number of schizophrenic patients. They found that age at first hospitalization, work history and education level were significantly related to favorable outcome. While the diagnostic criteria for schizophrenia differed from those applied by Fenton and McGlashan (1987), these results seem to confirm the importance of premorbid work-related social skills and abilities. Later, Westermeyer and Harrow (1986), working with a somewhat different patient population than was used in their 1984 study, compared ratings on a modified Zigler-Phillips Social Competence Scale with a number of

outcome measures. Again, they found a strong predictive utility between outcome and social competence.

In a large scale cumulative analysis of studies involving premorbid social functioning and outcome in schizophrenia, Stoffelmayr, Dillavou, and Hunter (1983) found that premorbid competence and outcome are significantly related. However, they also noted several qualifiers in respect to their conclusions. First, it is uncertain whether premorbid functioning is equally predictive across the entire range of measurement. These investigators suggested that the middle range of competency scores may exhibit more variability in predictive power than either high or low scores. Second, specific measures of premorbid functioning are usually the best predictor of that particular variable after hospitalization. This may erode the usefulness of global measures such as social competence. Third, it is difficult to determine whether different premorbid measures reflect differences in individuals or differences in environments. As a result, the influence of early development on an individual may not be clearly seen. Despite these qualifiers, psychiatric outcomes seem to be related to demonstrated premorbid functioning regardless of severity of symptoms at the time of hospitalization.

Intrapersonal Factors

In describing patients in terms of social competence, achievement of early development skills and specific

biological variables, measurement usually does not involve subjective input from the patient. However, patients retain their own intrapsychic factors which may not be apparent in their external behaviors. Blatt, Ford, Berman, Cook, and Meyer (1988) sought to examine schizophrenics based on the inferred constructs of either an anaclitic or an introjective orientation. These constructs are used to define groups of patients whose internal focus is either on establishing meaningful interpersonal relationships (anaclitic) or on resolving issues of identity and self-definition (introjective).

Blatt et al. (1988) have further suggested that anaclitic patients use avoidance defenses such as denial and repression, and introjective patients use counteractive defenses such as projection, reaction formation and intellectualization. If these constructs truly define uniquely different patients, then differential outcomes would be expected. In their study, Blatt et al. did in fact find that while interpersonal relations were significantly improved during treatment for both groups, only the introjective patients had significant changes in manifest clinical symptoms. These results are particularly interesting in light of the fact that there were no significant differences in premorbid functioning between the groups. Therefore, these results suggest a refinement in the results of other studies that attempt to relate

primarily social aspects of premorbid functioning to eventual outcomes.

McGlashan and Carpenter (1981) also identified a patient variable that might be significantly related to outcome. They attempted to assess the relationship between attitudes toward illness and eventual outcome for 30 schizophrenic patients. They found that patients with overly positive or overly negative attitudes toward their illnesses had significantly poorer outcomes than patients who were less negative about their illnesses and their futures. Also, a very positive attitude was not related to good outcome. As with Blatt et al. (1988), McGlashan and Carpenter failed to find significant correlations between outcome and either premorbid functioning or degree of psychopathology during hospitalization.

In an attempt to explain their results, McGlashan and Carpenter (1981) stated the position that patients' attitudes toward their illnesses reflect a characterological base that is not a function of the severity of psychotic symptoms. Instead, they believed that it may reflect a more enduring ability to be realistic in spite of symptoms that are viewed as embarrassing, painful, and suggest failures of adaptation. Why some patients acquire this realistic orientation more than others was not addressed in this study.

Multidimensional Influences

One of the traditional means of distinguishing subgroups of schizophrenics has been the process-reactive dimension, which is based on differences in premorbid adjustment and the course of symptom development. Process schizophrenics are thought to have poorer premorbid adjustment and a chronic course that is resistant to therapeutic interventions. Reactive schizophrenics are thought to have better premorbid functioning and a more favorable prognosis. Harrow, Westermeyer, Silverstein, Strauss, and Cohler (1986) examined the process-reactive dimension as a predictor of posthospital outcome. Their conclusion was that, "Current results suggest that there probably is a relationship between the process-reactive dimension and later posthospital outcome, but that it is less robust than was once thought" (p. 204). Harrow et al. theorized that outcome is also importantly impacted by the patients' family functioning, social network, and types of treatment they receive. These factors may help to explain why 37% of the reactive schizophrenics in the authors' study had poor outcomes rather than the better outcomes suggested by the process-reactive theory.

Vaillant (1978a) was less equivocal than Harrow et al. (1986) in minimizing the significance of reactive and process subtypes. In his 10-year study of 51 schizophrenics who had achieved a complete remission, he found that 20 of

them later relapsed and became chronic. Significantly, at the time of hospitalization these 20 patients were just as reactive as the 31 patients with sustained remissions. As a result, Vaillant rejected the reactive-process distinction and maintained that the prediction of remission and overall outcome is best accomplished by examining many different factors.

If there are many different factors that impact outcomes for schizophrenics, then there should be many different courses of post-hospitalization functioning. A study by Westermeyer, Harrow, and Carone (1987) suggested that this is indeed the situation for many schizophrenics. The authors assessed 102 schizophrenics at two and five years after hospital discharge. They observed considerable variance in the sequence of development for these patients, with about 50% of them displaying a distinctly episodic course. They concluded that multiple influences that can be either enduring or situational are responsible for the subsequent course of the illness. As with other studies (Harrow et al., 1986; Vaillant, 1978a), severity of symptoms at admission was not predictive of subsequent outcome.

In a conceptual paper, Vaillant (1978b) attempted to minimize the process-reactive dichotomy. Instead, he selected heredity rather than clinical symptoms as the single best predictor of the course of schizophrenia. In acknowledging the importance of heredity factors, Vaillant

also acknowledged the predictive power of various premorbid prognostic indicators. But the usefulness of the data that supports predictive factors other than heredity is often reduced by inconsistencies in diagnosis, measurement and assessment of supporting factors. Until better research provides improved data, Vaillant advocated using clusters of patient-based prognostic factors.

Discussion of Subject Variables

The utility of examining the characteristics of individuals who display schizophrenic symptomology lies in the hope of establishing treatment plans that can optimize the long term functioning of these individuals. If various biological, early development or premorbid factors successfully predict differential outcomes, then meaningful subgroups could be identified and assessed. Differential treatment approaches could in turn be developed for each unique subgroup. Unfortunately, the research to date in these areas has been equivocal.

The vulnerability model (Feinsilver, 1986) is potentially powerful because it accommodates biological, environmental and constitutional factors throughout the life of an individual. However, testing Feinsilver's theory is extremely difficult. The empirical work of Lewine et al. (1978) did not directly support a vulnerability model, but the impact of their study was limited by a number of methodological weaknesses. The most apparent area of

weakness was that of attempting to assess childhood adjustment retrospectively after an individual has become an adult hospitalized patient.

While premorbid social competence has been a widely used prognostic factor, the empirical support for this practice seems to be decreasing. Stoffelmayr et al. (1983) theorized that social competence is a significant prognostic factor only when social competence is rated as either unusually good or unusually poor. The work of Blatt et al. (1988) and McGlashan and Carpenter (1981) has also inferred that social competence is not very robust and that other more powerful factors may have been subsumed under social competence. Westermeyer and Harrow (1984) attempted to summarize some of these issues. They observed that developmental theorists appear to use prognostic variables to make inferences about premorbid functioning. They saw other theorists estimating premorbid functioning based on information concerning early morbid processes. Westermeyer and Harrow attempted to reconcile these perspectives by seeing prognostic variables as either influenced by one or more unknown variables, or influenced by reciprocal and interactive influences.

A final comment on classification by patient variables concerns the effects of therapy. Therapy as a variable was not well controlled in any of these studies, and it remains as a possible confound. Only Harrow et al. (1986)

acknowledged this, and they advocated future studies that would control for this important variable.

## Classifications by Clinical Symptomatology

In attempting to categorize schizophrenia by means of patient variables, the salient data was either psychosocial or biological in nature. It is interesting to note the secondary role assigned to clinical symptomatology in this perspective. While a clinical diagnosis of schizophrenia based on manifest symptoms was a requirement for including patients in the studies on patient variables, there is some variability in the various criteria used for diagnosis.

The different diagnostic approaches to classifying schizophrenia often reflect a traditional psychiatric orientation for diagnosis and treatment. Inherent in these approaches is the belief that significant differences in symptoms will define separate illnesses within the schizophrenic spectrum. Each illness, in turn, may have a related set of treatment approaches. However, widely used systems for diagnosis have poor agreement with other systems. Klein (1982) investigated the interrelations among seven widely used diagnostic systems. In general, there was considerable disagreement between the systems. Only nine patients out of a sample of 46 were designated as either schizophrenic or nonschizophrenic by all seven systems. Additionally, most systems were unable to significantly

differentiate patients on the basis of premorbid adjustment or paranoid symptomology.

The following studies focused on classifications of schizophrenia by manifest symptoms. These studies did not propose totally new diagnostic systems. Instead, they sought to address more helpful ways to distinguish significant subtypes of schizophrenia.

The Positive-Negative Distinction

Andreasen and Olsen (1982) hypothesized that positive and negative symptoms are useful criteria for defining a continuum of schizophrenic disorders. In attempting to verify this hypothesis the authors classified 52 schizophrenic patients as manifesting predominantly positive, negative or mixed symptomatology. They then examined these groups for significant differences. Their criteria for positive and negative schizophrenia followed a traditional delineation. Positive symptoms were seen to involve severe hallucinations, severe delusions, significant thought disorders and disorganized behavior. Negative symptoms noted involve alogia, flat affect, anhedonia, apathy, asociality and impaired attention.

After examining premorbid adjustment, previous course of illness, cognitive dysfunction and outcome at discharge, Andreasen and Olsen (1982) concluded that patients with negative schizophrenia had significantly different profiles as compared to patients with positive schizophrenia.

Negative patients, they concluded, had poorer premorbid functioning, longer hospitalizations, lower global functioning and higher ventricular-brain ratios. They also found that negative symptoms tended to be highly correlated with each other, but there were negative correlations between negative and positive symptoms. However, while they acknowledged the differences in these patients, they also suggested a possible confound to their results. They speculated that their use of cross-sectional phenomenology may obscure a single pathogenesis process that may have different clinical symptoms during its course. If this were true, then positive schizophrenia may represent an early form of the disease while negative schizophrenia is a more advanced form of the same unitary disease process.

Opler, Kay, Rosado, and Lindenmayer (1984) also examined the positive-negative distinction. They concluded that some of the variance in schizophrenic classification can be accounted for through the positive-negative dimension. However, their results differed from Andreasen and Olsen (1982) in two significant areas. First, from their sample of 47 chronic schizophrenics, they were able to classify only 18 patients as either positive or negative. Andreasen and Olsen classified 34 of 52 patients as either positive or negative. The patients in the Opler et al. study were also older and had longer hospitalizations than the group studied by Andreasen and Olsen. As a result, the

hypotheses of Andreasen and Olsen would suggest that this group should be predominately negative. But this was not the case with this group of patients. This discrepancy suggests the second difference between the studies. Andreasen and Olsen theorized a possible single illness with a characteristically variable course. The Opler et al. results were more supportive of a dual-process model that recognizes an association between negative schizophrenia and early disruptions in cognitive development. At best, then, the data from Opler et al. represent only partial support of the findings of Andreasen and Olsen.

Another examination of the positive-negative distinction was discussed by Ciompi (1988). In general, this author did not recognize any particular diagnostic or predictive utility for the positive-negative classification. Instead, he postulated that negative symptoms result from a form of psychosocial inertia activated after an acute episode of schizophrenia. Therefore, positive and negative symptoms would occur in waves of irregular magnitude and length, but cross-sectional investigations (Andreasen and Olsen, 1982; Opler et al., 1984) would fail to distinguish these cycles.

While Andreasen and Olsen (1982) and Opler et al. (1984) examined patients during hospitalization or at discharge, Pogue-Geile and Harrow (1984) investigated the positive-negative distinction approximately 1 to 2 years

after discharge. They found that 31% of their patient sample showed negative symptoms. However, they failed to find any significant differences in either pre-hospital functioning or at the post-hospitalization followup to account for this elevated number of negative symptom patients. They also noted weak but positive correlations between negative and positive symptoms. As a result, they departed from Andreasen and Olsen suggesting instead that negative and positive symptoms are not on different ends of a schizophrenic continuum. Therefore, negative symptoms may be useful in identifying a subgroup of schizophrenic patients who are already becoming chronic. In addition, they speculated that a mechanism that combines elements discussed by Ciompi (1988) and Opler et al. (1984) may exist in schizophrenia. Specifically, they postulated that the active form of schizophrenia may interact with early developmental deficits to produce negative symptoms.

Carpenter, Heinrichs, and Wegman (1988) modified the positive-negative distinction by introducing the concept of deficit and nondeficit negative symptoms in schizophrenia. They held that deficit symptoms are enduring and primary to the illness, while nondeficit symptoms are secondary, largely transient, and can be considered derivative of the primary positive symptoms. The significance of this breakdown is especially apropos to clinical intervention. Individuals with a clear nondeficit clinical picture would

be expected to respond favorably to therapy and have better outcomes than those with a clear deficit profile.

The study by Carpenter et al. (1988) examined the deficit and nondeficit dimension by evaluating 103 schizophrenic patients in an outpatient clinic. The researchers were able to categorize 79 of the patients confidently as in the deficit or nondeficit category. They found that the two groups did not differ on a number of demographic and premorbid functioning measures. However, the deficit group was significantly lower on the anergia-withdrawal factor and on a composite prognostic scale score. These results suggested a form of symptomatology which may describe a particularly chronic and enduring form of schizophrenia.

Support for the findings of Carpenter et al. (1988) was presented by Davis et al. (1988). In assessing the impact of antipsychotic drugs in the treatment of schizophrenics, the investigators divided negative symptoms into the categories of apathy, retardation and inappropriate affect. They found that the inappropriate affect component of the negative symptoms was as responsive to antipsychotic drugs as were positive symptoms. However, approximately 30% of the patients who had either the apathy or retardation components of negative symptoms showed little improvement in these negative symptoms, while showing average improvement in the positive symptom area. These results suggested that

certain subgroups of negative symptoms may define a set of schizophrenic patients who are more resistant to both pharmacological and psychotherapeutic interventions.

The Significance of Thought Disorders

While Klein (1982) pointed out the lack of agreement between diagnostic systems for schizophrenia, Young, Tanner, and Meltzer (1982) attempted to find a core diagnosis that underlies the various diagnostic systems. Through the use of a latent class analysis (a form of statistical analysis that seeks to identify convergent variables) they determined that the existence of a formal thought disorder together with blunted affect define a core group of schizophrenics. They also acknowledged that biological variables should also be included in the diagnosis, but did not offer a methodology for doing this. The implication of their work is that any evaluation of treatments and outcomes is subjected to diagnostic confounding if individuals other than core schizophrenics are included.

The thought disorder symptom was also assessed by Harrow, Silverstein, and Marengo (1983). They isolated a fairly young inpatient sample of both schizophrenic and nonschizophrenic patients and assessed them at the time of hospitalization and again approximately 2.5 years after hospital discharge. Severity of thought disorder was tested at hospitalization and at follow-up. Posthospital functioning was assessed on a number of social and

symptomatic variables. The severe thought disorder patients were found to have significantly lower posthospital functioning. No attempt was made to correlate these results with the manifestations of negative symptoms.

In general, the research on the importance of negative symptoms in predicting course and outcome of schizophrenia appears to be somewhat more robust than examining thought disorders. For example, the results of Harrow et al. (1983) could also be accounted for by the simultaneous existence of certain negative symptoms. Also, the work of Davis et al. (1988) seems to have indicated that persistence of positive symptoms such as thought disorders is more powerfully explained by certain negative symptoms. Additionally, Harrow et al. failed to address why almost 50% of their nonschizophrenic population evidenced moderate or severe thought disorders.

## The Process of Schizophrenia

The term schizophrenia may actually be a label for a family of disorders with some common elements. But within this range of schizophrenic disorders there may be indicators that define an expected course or prognosis for the disorder. The deficit category of negative symptoms (Carpenter et al., 1988) suggests a group of patients who will probably experience a chronic course with poor prognosis. However, other investigators have been more

reluctant to predict an invariant course for schizophrenia. From the viewpoint of psychotherapeutic intervention there is a tacit assumption that there is at least some possibility of multiple courses.

In an attempt to assess the course of schizophrenia over time, Westermeyer, Harrow, and Carone (1987) evaluated 53 patients at two years after hospital discharge and again at approximately five years after discharge. They found that 11% of the patients showed good functioning at two years, but this increased to 21% at five years. Westermeyer and associates held that these results suggest schizophrenia does not exhibit an invariant sequence. Instead, multiple influences can moderate the course and outcome of the disorder.

Further support for a multiple course perspective is seen in the review of five long-term studies of schizophrenic patients by Harding, Zubin, and Strauss (1987). In these studies the mean length of followup was more than 25 years, and approximately 1300 patients were assessed. In total, approximately 56% of the patients had recovered or had achieved significant improvement. The investigators inferred that their data supports a perspective that attributes much of the observed chronicity in other research to a number of psychosocial artifacts that reduce the possible number of helpful interventions. The

notion of multiple courses further suggests the possibility of multiple interventions.

## Causes and Course in Schizophrenia

If a discrete number of causes of schizophrenia could be isolated, then it seems likely that issues of classification and treatment might be simplified. On the other hand, if schizophrenia is a variable mix of many possible causes, then issues of diagnosis, classification, course and treatment would become far more complex. In a long-term study, Vaillant (1978a) noted that remitting schizophrenics tend to resemble remitting non-schizophrenics (primarily severe mood disorders) in many areas of initial symptomatology and premorbid functioning. He concluded that in schizophrenia course and diagnosis should be seen as different dimensions of a more fundamental category of psychosis. Vaillant preferred the more general label of psychosis because he envisioned schizophrenia as having both polygenic and environmental causes.

Vaillant's (1978a) conclusions were also supported by Carpenter (1986). Carpenter argued that understanding schizophrenia requires a complex biopsychosocial model that simultaneously incorporates social, psychological and biological factors. These factors interact in a unique fashion for each schizophrenic patient and, as a result, treatment plans need to be individually developed.

Carpenter further theorized that research on treatment effectiveness of either pharmacological treatments or various psychotherapies with schizophrenics suffers from a lack of sensitivity to the differences among individual schizophrenics.

In a related approach toward integrating multiple causes into an understanding of schizophrenics, Feinsilver (1986) affirmed the usefulness of the vulnerable self model which incorporates a dynamic interplay between biological and psychological factors to produce a predisposition to pathology. However, Feinsilver held that this vulnerability is largely nonspecific. Schizophrenia, then, is seen as a form of pathology resulting from the vulnerable self that may be influenced by either temporary or enduring factors. It is also important to keep in mind that the complexity of the biological factors in schizophrenia is enormous (Davis et al., 1988; Gottesman et al., 1987; Shapiro, 1981). This complexity is an important reason why Feinsilver has held the view that a precise definition of etiology will remain elusive. Consequently, symptomatology and prognosis will also remain variable and subject to multiple courses.

Improvement in Schizophrenia

The multidetermined theory of schizophrenia is a powerful explanatory element in understanding why a variety of interventions with schizophrenia have had some success. However, it is also likely that various interventions will

have various potentials for improvement for any schizophrenic patient. But it is also useful to consider if there are finite limits of possible improvement in the treatment of schizophrenia. That is, can schizophrenic individuals become chronically impervious to change? Westermeyer and Harrow (1984) suggested that this is not necessarily true because the passage of time alone can bring increasing degrees of recovery. However, the empirical research into treatment effectiveness generally does not include individuals who have had a very long history of schizophrenic symptoms. Perhaps this selection reflects a bias that precludes a reasonable expectation of change in an extremely chronic population.

While the potential for change may be more limited in a more chronic population, a number of authors have held the belief that even chronic patients have the potential for significant improvement (Ciompi, 1988; Karon & Vandenbos, 1981; Lowental, 1980). They held that cores of potentially good functioning exist in most schizophrenics that can become bases for change in the entire personality.

## Instruments and Methodology

There are a number of factors that affect the relative validity of outcome studies with schizophrenics. The characteristics of the patients and their general premorbid functioning have some influence over outcome. Likewise,

various symptomatic variables also seem to have an impact on posttreatment functioning. Additionally, outcome studies are also impacted by the various means of measuring functioning and changes in functioning. Patient selection and measurement variables are important areas of possible alternative explanations for the observed changes in the outcome studies. This is especially significant in the many studies that do not have either a comparison group or a control group.

## Characteristics of Patient Populations

In general, the outcome studies that are reviewed utilized a patient sample size large enough to reveal significant differences. The mean sample size was 103, with a range from 23 (Allen et al., 1986; Fenton and McGlashan, 1987; Glass, Katz, Schnitzer, Knapp, Frank, & Gunderson, 1989) to 297 (Westermeyer and Harrow, 1986). However, in two of the studies that involved comparisons there is some question about sample adequacy. In the comparison of individual supportive therapy and family therapy by Doane, Fallon, Goldstein, and Mentz (1985), the sample sizes were, respectively, only 16 and 18. Also, Glass et al. attempted to differentiate some key therapeutic process variables with only 23 patients. External validity for these studies may be weakened by the small sample size.

A general characteristic of the outcome studies is the tendency to utilize a younger patient population. Only four studies had patients older than 35 years of age (Alamen, Rakkolainan, Rasimus, Leakso, & Kaljonen, 1988; Doane et al., 1985; Gunderson, 1978; McGlashan & Carpenter, 1981) and only the study by McGlashan and Carpenter had patients more than 45 years old. The majority of patients in these studies were between 18 and 28 years old. The impact of this selection bias is difficult to assess. On one hand, the younger population tends to eliminate older, more chronic patients who may be less responsive to therapeutic interventions. On the other hand, relatively early onset of acute symptoms leading to a diagnosis of schizophrenia can often indicate a tendency to become chronic and resistant to treatment. This is especially true with individuals who had lower levels of premorbid functioning.

Another patient selection bias concerns place of hospitalization with a concurrent shift in patient social and educational status. In total, of the 17 reviewed studies, 14 had patient populations that were either partly or totally from private hospitals. Patients in private hospitals tend to come from family backgrounds that are more supportive and higher functioning. These variables are typically favorable for therapeutic outcomes. Also, patients in private hospitals tend to have higher levels of

education which may, by itself, be a positive therapeutic factor.

Another source of outcome variance that can be related to patient characteristics is the level of premorbid functioning. While most of the reviewed studies assessed overall levels of premorbid functioning, there was little discussion on how these factors might impact therapeutic intervention. As with social status, relatively high levels of premorbid functioning may be seen as potentially self-curative.

A final area of outcome variance due to patient characteristics involves differentials in prior treatment. In most of the studies, the patients had different numbers of prior hospitalizations. As a result, they have had different exposures to both pharmacological treatment and psychotherapy. The impact of prior therapy on current therapy was not addressed in any of the studies. However, two studies (May, Tuma, & Dixson, 1987; Tuma, May, Yale, & Forsythe, 1978) utilized only first admission patients, and prior treatment effects should not be significant in those studies (prior outpatient therapy was not addressed).

## Measurement Issues

The reviewed outcome studies have variable levels of comparability due to differences in what variables are measured as well as how they are measured. A small

subsection of the studies reviewed examined therapy process variables; a larger (but still relatively small) number examined therapist variables, while all the reviewed studies examined at least some patient variables.

Only three of the reviewed studies examined therapy process (Glass et al., 1989; Gunderson et al., 1984; Stanton et al., 1984). Glass et al. used factor analysis to analyze 22 process variables derived from evaluating actual therapy sessions. The 1984 companion studies by Stanton et al. and Gunderson et al. evaluated therapy sessions as either exploratory, insight-oriented or reality-adaptive, supportive.

Of the studies that have examined therapist variables, some examined a wide range of factors such as age, general experience, experience with schizophrenics, attitudes and personality variables (Gunderson, 1978; Gunderson, Frank, Katz, Vannicelli, Frosch, & Knapp, 1984; Stanton, Gunderson, Knapp, Frank, Vannicelli, Schnitzer, & Rosenthal, 1984). The studies by Tuma et al. (1978) and Beck, Golden, and Arnold (1981) only examined a therapist's overall level of experience.

Evaluations of client variables often reflect theoretical predispositions. That is, the variables are concentrated in either functional aspects which measure social, interpersonal and occupational dimensions, or in symptom related aspects which measure severity of symptoms,

number and duration of hospitalizations and behavior ratings. Often with studies that have dealt with analytic therapy a number of variables are evaluated that relate to inferred personality dimensions. Measures such as developmental level (Allen et al., 1986), insight ability and ego functioning (Alamen et al., 1988), and ego structural change (Blatt et al., 1988) reflect an analytic orientation. The studies by Stanton et al. (1984), Gunderson et al. (1984), and May et al. (1977) attempted to measure outcome broadly and incorporate the three major areas of functioning, symptoms and inferred states.

While measurements are typically made in one or more of these three major sets of client variables, a number of measurement issues are important to consider. The first issue concerns comparability of measurements. Even in studies that share a common concentration in one area (i.e., functioning), there tends to be a variety of instruments and criteria used to evaluate the same dimension (i.e., social contacts). Likewise, criteria such as number and duration of hospitalizations, which appear to be relatively objective, may not reflect equal conditions because different hospitals have different standards for admission. Consequently, results of different studies are not directly comparable.

Another source of unexplained variance lies in the approach to measurement. Some instruments were completed by

therapists, some by independent observers, some by hospital staff, and some by patients and/or families. Some of the studies attempted to evaluate interrater reliabilities, but, in general, reliabilities of the assessed patient variables are often questionable.

Given the lack of standardization in measurements it would be helpful if there were some uniformity in measurement intervals. Unfortunately, there also seems to be little agreement in this area. Some studies assessed posttreatment changes at hospital discharge, other studies used a fixed interval of time after hospital discharge, and still other studies evaluated change when therapy was terminated. Given these differences in intervals, outcome comparability seems to have been somewhat compromised. Nevertheless, each study can still make a contribution to understanding outcome despite differences because of measurement issues.

## Definitions of Treatment Packages

In virtually all the studies patients usually received multiple forms of treatment, and determining incremental psychotherapy effect is difficult. With the exception of the studies by Carpenter et al. (1977), Fenton and McGlashan (1987), and May et al. (1977), pharmacological interventions were a large part of the therapy, and this intervention can represent a substantial source of unexplained variance. In

general, however, the outcome studies compared patients receiving one form of psychotherapy to patients who received other forms of intervention. In some studies, the comparison was between various modalities of psychotherapy (Doane et al., 1985; Glass et al., 1989; Gunderson et al., 1984; Stanton et al., 1984).

Because therapy process was investigated in only three studies, it is difficult to evaluate whether the therapies that are described in similar terms (i.e., psychoanalytic) really describe similar therapy. This factor may account for some outcome variance. Other variations in both duration and frequency of treatment also erodes comparability between the studies.

Another therapy issue that may be a possible confound concerns the level of outside support from families and helping institutions. Fenton and McGlashan (1987) held that this is an important source of outcome variance, however, this dimension was essentially unexplored in the reviewed studies. Both families and supportive institutions can be important determinates in eventual outcome and course.

## Therapy Outcomes

Investigation into the effectiveness of psychotherapy with schizophrenics has been limited by two broad factors. The first factor concerns the complexities in developing adequate levels of internal and external validity.

Selection of patients can introduce variance from differences in diagnostic approach, symptomatology and premorbid functioning. Additionally, treatment is often poorly controlled, with substantial differences in prior treatment histories, duration and frequency of treatment, and other simultaneous treatments. The second broad factor concerns a widespread bias against psychotherapy in favor of pharmacological interventions (Carpenter et al., 1977). In spite of these problems, a number of researchers still feel that psychotherapy is an important component of the treatment of schizophrenics.

## Effectiveness of Dynamic/Analytic Therapy

During the 1950s psychodynamic psychiatry enjoyed considerable acceptance in the etiology and treatment of schizophrenia. Psychotherapeutic interventions were considered an ethical imperative despite the fact that these services were available for only a small number of schizophrenic patients (Carpenter, 1986). With the rise of pharmacological interventions the use of dynamic theory and interventions declined sharply. However, a small number of researchers are still attempting to both define the effectiveness and refine the use of dynamic/analytic therapy with schizophrenics.

Generally Positive Outcomes

Carpenter et al. (1977) sought to investigate the usefulness of psychoanalytically oriented psychotherapy in the treatment of schizophrenics who were taken off pharmacological interventions. The design of the study was interesting in that the drug-free psychotherapy group was compared to two other groups. One group received the same psychotherapy but with maintenance amounts of phenothiazines. The second comparison group received drug therapy but no significant psychotherapy. The comparison groups were approximately comparable to the treatment group on a variety of demographic, clinical, and prognostic measures. All patients were measured on a variety of factors at admission, at discharge, and at one year after hospital admission. There were no significant initial differences between the three groups as measured by a 15 item assessment scale. The scale included measures of symptom severity, time in a hospital, social functioning, and work history. Additionally, the same diagnostic criteria were applied to all patients. However, the two groups that received psychotherapy generally came from higher socioeconomic classes than the no psychotherapy group. This difference may have contributed to the observed outcome variance.

The psychotherapy package as defined by Carpenter et al. (1977) was fairly intensive. Patients were seen in

individual therapy two or three times a week. Additionally, these patients participated in weekly group and family therapy. Outcome scores at the one-year evaluation were a composite assessment of work function, amount of hospitalization, severity of symptoms and social functioning. The results of the outcome assessment showed significantly superior results for the two groups receiving psychotherapy compared to the no psychotherapy group. Additionally, comparisons between the drug-free patients and the medicated patients who received psychotherapy showed significantly lower levels of depression and rehospitalization for the drug-free group.

Carpenter et al. (1977) concluded that psychotherapy with acute schizophrenics who receive minimal use of medication is a viable treatment option. However, in assessing the validity of the results the investigators acknowledged that failure to control for a number of treatment variables may have served as a possible confound. Specifically the area of largest possible variance was that the modality and quantity of any post-hospitalization therapy was not controlled.

One of the issues raised by Carpenter et al. (1977) was the durability of psychotherapeutic interventions. That is, do therapeutic improvements remain durable over time, or do intervening variables reduce or even eliminate the improvements? In a complex and comprehensive study of

schizophrenics over a 20-year period, McGlashan (1984) attempted to investigate these issues. McGlashan examined the amount of improvement and the variability of improvement over time of 163 chronic schizophrenics who were treated at the Chestnut Lodge Research Institute. Additionally, these patients were compared to other patient cohorts from different treatment centers who were also assessed over a 20-year period.

The patients selected by McGlashan (1984) were described as treatment resistant, with multiple prior unsuccessful treatment attempts at several other institutions. The durability of their symptoms suggested a significantly chronic population. Treatment consisted of individual, psychoanalytically-oriented psychotherapy four times per week, plus milieu and other adjunctive therapies. Criteria used in measuring outcome included amount of hospitalization, employment, social activity and symptoms of psychopathology. What was unique about these measures was a commitment to assessing favorable outcome in relation to normal functioning for a nonpathological population. Such a standard is far more demanding than usually applied to schizophrenic populations.

The results from McGlashan's (1984) study can be divided into two parts. The first part concerns the durability of therapeutic change. The second concerns the improvement of the Chestnut Lodge group relative to other

treatment groups. With regard to the first part, it was found that there were no significant changes in the mean of the outcome measures for the total population over the 20-year span of the study; the overall average outcome for this group was not very good. Against the demanding criteria established by McGlashan two of every three schizophrenic patients were either marginally functional or chronically ill at the various follow-up points. The other area of comparison was more encouraging. With regard to relative improvement, the Chestnut Lodge group was significantly higher functioning in a number of areas compared to somewhat similar populations who were measured over equivalent intervals. The comparison groups were in other treatment centers and did not receive the intensive, psychoanalytically oriented psychotherapy of the Chestnut Lodge group. These other comparison groups, compared to the Chestnut Lodge group, had lower levels of married patients, patients in independent or semi-independent living situations and partially or fully self-supporting patients.

As with Carpenter et al. (1977), McGlashan (1984) failed to control for posthospitalization therapy. Within the large groups of patients that were assessed over a long period of time, there was considerable variance in both type and duration of additional treatment. How much of the observed variance can be explained by this factor is unknown. However, the results are sufficiently robust to

suggest that intensive psychotherapy appears to provide an incremental benefit in the treatment of chronic schizophrenics.

The studies of Carpenter et al. (1977) and McGlashan (1984) examined psychotherapy effectiveness for broad groups of schizophrenic patients. In a somewhat different approach, Allen et al. (1986) attempted to examine the relative effectiveness of psychotherapy for a group of paranoid schizophrenics. Specifically, Allen et al. evaluated the overall improvement of these patients to determine if the amount of change varied with respect to the paranoid criteria. Selection of subjects was on a random basis, but it was done retrospectively. As a result, all evaluations were done based on hospital records and therapist recall.

Allen et al. (1986) constructed several points of comparison. First, the therapists who had worked with each patient rated them on a 100-point scale for Global Improvement and degree of Treatment Alliance. This rating indicated significantly lower levels in both these categories for the paranoid patients compared to nonparanoids. Additionally, the therapists also established that both at admission and discharge the paranoid patients were more grandiose and violent than a nonparanoid group. However, these ratings were contrasted with additional ratings generated by therapists who were not involved with

therapy for these patients. These independent raters evaluated the patients at admission and discharge in the areas of psychoticism, paranoid-hostility and overall developmental level. In these areas the paranoid patients differed significantly from nonparanoid patients only along the paranoid-hostility dimension. The authors concluded that paranoids tend to be more difficult to engage in treatment, and evaluations by therapists tend to reflect this difficulty with concurrent underestimation of functioning.

Allen et al. (1984) also pointed out that both paranoids and nonparanoids improved significantly in all areas at discharge compared to admission. However, this is a within-subjects comparison and no control group or alternative therapy group was used for comparison. Additionally, the authors acknowledged a number of other methodological limitations, the most significant concerning the fact that ratings were not made blind to outcome.

Allen et al. (1984) sought to define a potential subgroup of schizophrenics who might be more or less responsive to psychotherapy. Their results suggest that the paranoid dimension does not define a group that is resistant to psychotherapeutic intervention. In a similar developmental project examining treatment resistant subgroups, Alamen et al. (1988) selected a number of patient variables that were used to divide schizophrenic patients

into treatment groups that would receive either individual, group, family or community-based support as their primary mode of intervention. These patient variables included psychosocial characteristics, acute or gradual onset of symptoms, and, as the main variable, degree of ego integration. It was anticipated that all therapy categories would show improvement at the five year follow-up compared to admission. What interested the researchers was whether the type of therapy, or some of the patient variables, would emerge as most closely related to eventual improvement.

The results of the study (Alamen et al., 1988) indicated that intensive individual therapy, either inpatient or outpatient, yielded the most positive correlations with favorable outcomes. Outcome measures included the number and severity of schizophrenic symptoms, and changes in working capacity. These favorable outcome individuals, compared to less favorable outcome patients, were distinguished by their higher levels of insight and their lower levels of acting-out behavior. Individual therapy for both these groups was described as insight oriented and psychodynamically based. The authors suggested that their criteria for selecting an appropriate therapy modality can be the basis for further research.

Alamen et al. (1988) acknowledged the lack of experimental rigor in their project. The absence of any sort of a control group made comparative statements

extremely difficult. The benefit of their study lies in its potential for further research, as Alamen and associates have established a baseline of useful data. That is, they have defined a patient group that may be receptive to psychotherapy, an optimum therapeutic modality, and an amount of anticipated functional change for that group. Conceivably, then, other researchers could vary one or more of these three factors in order to test the significance of each.

Influential Variables for Analytic/Dynamic Therapy

The study by Carpenter et al. (1977) examined the effectiveness of intensive, analytically oriented therapy for a broad range of schizophrenic patients. However, their research also raised a question as to what factors may influence the efficacy of their treatment approach. McGlashan and Carpenter (1981) sought to test whether patients' attitudes towards their illness would impact outcome. In this 1981 study, they maintained the same treatment approach utilized earlier by Carpenter et al. (1977). However, the patient groups were somewhat different in a number of areas. Patients for the study were selected at admission based on a rigorous diagnosis of schizophrenia, recent acute onset, and previous adequate occupational and social functioning. These factors are generally related to more positive outcomes. Therapy was conducted during hospitalization which varied from three months to about five

months. Assessment of functional outcome and patient attitudes towards illness was done at 12 months after admission. Assessments of outcome focused on various social, occupational, symptomatic, and global functioning variables. Attitude was measured by the Soskis scale.

McGlashan and Carpenter (1981) determined that for these patients outcome was more significantly related to an absence of a negative attitude than to the existence of a positive attitude. They further concluded that the optimum attitude combination is neither overly negative nor overly positive. While the patient's attitude toward illness and the future may explain some of the variance in outcome studies, it is difficult to assess how much. There may be other variables that are codeterminate with attitude and are more significant predictors. Another possible weakness in this study is measurement of attitude after receiving therapy. Patient attitudes may be the product of the therapeutic experience. Of greater interest would be a pretreatment measurement of attitude compared to outcome and posttreatment attitude. Nevertheless, attitude may point to certain processes that can define a more receptive group for psychotherapy.

The patient population in the McGlashan and Carpenter (1981) study was selected because of their generally good prognosis. Given a good prognosis, are there other variables that can make an incremental impact on treatment

effectiveness? Fenton and McGlashan (1987) attempted to provide more information on variables impacting therapy effectiveness, but their approach was quite different. They evaluated outcome data for a large number of patients over an average of 15 years in an attempt to select a group of patients who had sustained good outcome in the absence of pharmacological intervention. These good outcome individuals were compared to another group with more typical outcomes, but this latter group was similar to the first with respect to age, marital status at admission and family socioeconomic condition.

Both groups of patients received essentially the same intensive, analytically-oriented psychotherapy as inpatients, and also for about two years as outpatients. Therefore, Fenton and McGlashan (1987) sought to hold initial therapy as a constant in order to discover which variables might explain the variance in outcomes. The authors discovered a number of significant variables both in functional and symptomatic areas. In the functional area, the most powerful predictor of outcome variance (through a stepwise multiple regression analysis using admission data) was the acquisition of social skills and social interests. Premorbid work functioning and quality of heterosexual relationships were also significantly related. In the area of symptoms, the good outcome patients at admission had significantly lower levels of hebephrenic-like symptoms and

significantly higher levels of depressed mood and derealization. The authors cautioned against the assumption there is a firm profile that defines a group that greatly benefits from a drug-free state combined with intensive psychotherapy. But their work seems to indicate some favorable signs for psychotherapy.

Fenton and McGlashan (1987) examined patient functions and symptoms that have fairly objective operational descriptions. In a different approach, Blatt et al. (1988) attempted to examine the influence of two inferred personality constructs on the effectiveness of intensive psychoanalytically-oriented psychotherapy. The patients were young adults in a private, inpatient facility. They were selected at random and assessed at approximately six weeks after hospitalization and again about 15 months later. Assessment included the Rorschach, the Thematic Apperception Test and an intelligence test. Results of the initial assessment were used to define two subgroups. One subgroup was defined as anaclitic with an orientation toward affection, intimacy and interpersonal relations. The other subgroup was defined as introjective with an orientation toward self-definition, and issues of anger and aggression. The resultant groups did not differ on a number of demographic and prognostic variables except for sex. The anaclitic group had a significantly greater number of females.

A number of problems were introduced by the design of this study. First, the patient population was not well specified by diagnosis. While it appeared as though many of the patients were schizophrenic, it was obvious that many were not. Second, the validity and reliability of their constructs is open to question. The determination of the primary sort between anaclitic and introjective is largely based on only a few variables from the Rorschach. Additionally, the use of the Developmental Index from the Rorschach as a means of measuring the quality of object relationships is open to criticism because of its narrow measurement base and questionable reliability. Third, the outcome measures focused on inferred internal states and symptoms without any comparison to actual functioning.

Given the methodological problems, it may be best to view the conclusions of Blatt et al. (1988) with considerable caution. These conclusions suggest that therapy with introjective patients, at least initially, should focus on ideational issues. Initial therapy with anaclitic patients should focus on building a strong therapeutic alliance. While these conclusions are provocative, they should be viewed as tentative and speculative until further research is done.

The research on potentially influential variables has focused on discovering differences between subjects that are not reflected in diagnosis. Using a different approach,

Glass et al. (1989) attempted to discover variables within the process of psychotherapy that may account for some portion of outcome variance. Glass et al. conducted their study in a private inpatient facility with a group of 23 patients who were similar in baseline psychopathology, demonstrated a nonchronic history, and were acutely schizophrenic. These patients were evaluated on 49 different variables, both at admission and again at two years after admission. The variables focused primarily on cognitive, social and symptomatic areas.

Given this relatively homogeneous group of patients, Glass et al. (1989) sought to measure a number of variables within the psychotherapy sessions. A total of 22 process rating scales were used to evaluate the content of two consecutive therapy sessions six months after starting therapy. To minimize therapist contamination, all sessions were taped. Seven different clinicians rated each session using the rating scales. A factor analysis of the resultant data revealed three main factors. These factors were skillful dynamic exploration, supportive activity and directive activity. Outcome at the two year assessment was then compared to these three variables (however, it should be noted that the interrater reliabilities between ratings were weak, with a mean $\underline{r} = 0.46$).

The results of comparing therapy process with outcome were instructive (Glass et al., 1988). The skillful dynamic

exploration sessions were significantly related to improvements in denial of illness, reduction in global psychopathology, and reduction of retardation and apathy. The variables of supportive activity and directive activity were significantly related to reduction in anxiety and depression. Skillful dynamic exploration was also a significantly better predictor of outcome variables than patient baseline data. However, baseline data was more predictive of outcome than either supportive activity or directive activity.

Glass et al. (1989) acknowledged some methodological weaknesses in their study. The previously mentioned low interrater reliabilities were weak and suggest that the variables being studied were insufficiently defined. Additionally, the issue of the reliability and validity of only two therapy sessions when more than 50 sessions were conducted was not explored by the authors. However, this study could serve hopefully as a basis for further research that may discover relationships between various groups of clients and helpful therapeutic processes.

A study by Beck et al. (1981) attempted to determine if psychotherapy was perceived to be effective by schizophrenic patients and if the patients who engaged in long-term psychotherapy differed from schizophrenics who did not seek psychotherapy. The patients from the study had been inpatients at a private hospital. A sample of 27

schizophrenic patients who had been in dynamically-oriented psychotherapy for at least one year (mean = 2.2 years) was compared to a sample of 20 schizophrenics who were not in psychotherapy.

The results of the Beck et al. (1981) study provide an interesting contrast. Those individuals who remained in therapy were significantly lower in their social functioning, were less often working, and exhibited more severe symptoms than individuals who did not remain in therapy. The authors concluded that individuals with greater skills for independent living did not need to remain in therapy.

While the psychotherapy group did not achieve the functional levels of the comparison group, Beck and associates sought to determine what benefits, if any, were derived from psychotherapy. Both patients and therapists were extensively interviewed about the therapy process. Therapy was described as positive and beneficial by 85% of the patients and by 94% of the therapists. For those individual patients in the psychotherapy group who did exhibit significant improvement in functioning, several factors seemed to emerge. First, patients and therapists typically described the therapeutic experience in similar terms. Second, the more successful therapies were also described in dynamic terminology. Third, psychotherapy that resulted in systematic differences between how patients and

therapists described treatment was marked by an absence of functional improvement. It is possible that the Beck et al. (1981) study was describing at least one aspect of the therapeutic alliance. If so, the results inferred that the degree of therapeutic alliance is related to therapeutic effectiveness.

## Other Individual Psychotherapies

The psychotherapy outcome studies reviewed above have been described as psychoanalytic or dynamic in orientation. The studies that are now reviewed next have different orientations. However, they still may utilize some dynamic/analytic principles, even though not part of their main theoretical base. The descriptions of these therapies illustrate some of the difficulties in categorizing psychotherapy interventions.

### Influence of Intervening Variables

In two studies by Westermeyer and Harrow (1984, 1986), a number of factors were examined for their predictive utility with schizophrenic patients. In neither of these studies was psychotherapy well controlled. The patients received individual psychotherapy but at unspecified frequencies and durations. Instead of controlling for therapy, the authors instead sought to discover variables that would be sufficiently robust to emerge despite variable levels of psychotherapy.

In the 1984 study, Westermeyer and Harrow compared 17 patient variables concerning prior functioning, existence of affective symptoms, and demographic items to five outcome variables. The outcome variables included an overall outcome scale, work performance, social interactions, number of hospitalizations and psychotic symptoms. Of the 85 comparisons, the authors found 16 significant at the 0.05 level. Those factors with the highest correlations to outcome included prior work adjustment, age at first admission, education level, and intelligence. However, while there were a number of significant correlations, there were only two comparisons that were greater than $\underline{r} = 0.40$ (work outcome compared to education and to intelligence). Additionally, no one factor was significantly related to more than three of the five outcome measures. As a result, it is best to see these variables as possible confounds in assessing psychotherapeutic effectiveness.

In the 1986 study, Westermeyer and Harrow narrowed their range of potentially predictive variables to include only a social competence scale, but they retained the same five outcome variables as in their 1984 study. While the patient population was broader in the 1986 study, there was some overlap in the patient samples in these two studies. The results of their comparisons showed that the scores on the social competence measure were significantly related to overall outcome, good work adjustment, and less psychotic

symptomatology. However, it should be noted that the social competence scale was only marginally better than simply comparing education level and prior work adjustment. The incremental predictive value appears to be minimal while adding considerable complexity and lower reliability into the assessment process.

Westermeyer and Harrow (1984, 1986) were interested in examining various patient variables that influence outcome. However, therapist variables also can impact outcome regardless of frequency and duration of therapy. In an interesting study by Gunderson (1978), the matching of patient and therapist variables was examined for its possible impact on therapeutic outcome. A unique aspect of this study was in selecting out only schizophrenics who had had a change in therapist during treatment. Comparisons between the level of change that occurred with one therapist were made with the amount of change that occurred with the other. Additionally, both therapists and patients were rated on ten different qualities that included passivity, hostility, paranoia, depression, and anxiety. Analyses were performed to see if the degree of matching of these qualities impacted outcome.

Gunderson (1978) acknowledged that the low interrater correlation coefficient of 0.6 may reduce the usefulness of the resulting analysis. Nevertheless, his results are provocative. Hostile, depressed, aggressive and seductive

patients achieved good results only with therapists who were comfortable with these qualities. Additionally, the most influential therapist characteristic across all patient groups seemed to be a sense of comfort with, and interest in, patients' intense affect. Therapists with this characteristic achieved consistently better outcomes with their patients. Despite some of the weaknesses in this study, it appears as though patient-therapist matching may account for some of the variance in outcome studies.

Another therapist variable that has been investigated with a schizophrenic patient population is therapist experience. Tuma et al. (1978) examined the relationship between 23 different patient outcome measures and the length of clinical experience of the primary therapists. In order to reduce the possible number of confounding variables, the authors introduced into the design a number of interesting features. In order to increase sensitivity, the number of patients selected was fairly high (228) and a broad range of outcome measures were used. These measures incorporated assessments by independent psychoanalysts, primary therapists, staff psychologists, nurses, and the patients themselves. To reduce prior treatment effects only first admission patients were used. Patients were assigned on the basis of a rotating roster, and differences between patients were statistically controlled by using seven different patient covariates. Outcome was assessed at termination of

treatment. However, neither the length of treatment nor the criteria for treatment termination were well controlled. The influence of these variables on outcome cannot be directly determined.

The results of the Tuma et al. (1978) study were somewhat surprising. None of the 23 outcome variables was found to correlate significantly to therapist experience. Only one variable, length of stay for successfully released patients, approached significance ($p = .0875$). The researchers concluded that while there are significant differences in patient outcomes between therapists, these differences are not related to clinical experience. They suggested further study to discover what these salient characteristics might be. Despite the careful design of the study, there were two areas of possible weakness. First, the range of experience was only .16 to 11.65 years. It is possible that the experience variable is important only after some longer period of time. Second, each therapist (there were 38 in the study) received close supervision from a senior staff member. It is possible that the supervision factor reduced any negative impact of inexperience (which, of course, is a major reason for having supervision in the first place). As seen in this study and others with schizophrenic patients, achieving high levels of internal validity remains elusive.

Effectiveness of Other Individual Therapies

May et al. (1977) referred to some investigators who believe that it is possible for certain outcome studies to show no differences in mean improvements between psychotherapy and control groups. This is because some patients get better while others get worse. Therefore, they suggested outcome variance may decrease without mean scores necessarily changing. However, May et al. held the view that treatment conditions decrease outcome variance in proportion to the effectiveness of the particular treatment. They designed a study to test their hypothesis by randomly assigning 228 first admission patients to four treatment groups and to one control group. Two of the treatment groups incorporated individual psychotherapy.

A wide range of outcome measures were used. Of the 33 measures employed, ten were provided by independent raters, ten by psychological tests, six by the nursing staff, and seven by the primary therapist. Outcome measures were assessed at admission and again at treatment termination (6 to 12 months after admission). However, it should be noted that the outcome measures did not measure functional impairment/improvement outside of the hospital environment. It is unclear what relationship might exist between these outcome measures and a more functional assessment conducted some time after hospital discharge.

After analyzing changes in variance and changes in outcome measures, May et al. (1977) concluded that the combined drug and individual psychotherapy group had the greatest improvement in outcome measures as well as the lowest level of outcome variance. Additionally, they found this inverse relationship to be true in the other groups as well. However, their results were achieved only when the outcome variance of the treatment groups at posttreatment assessment was compared to the outcome variance of the control group. When the comparison was done on a within-group basis, outcome variance was actually greater at posttreatment than at pretreatment for the effective treatment groups. The significance of this factor, unfortunately, was not discussed.

An extremely ambitious and extensive study of the relative effectiveness of two forms of individual therapy was reported in two related articles. Stanton et al. (1984) addressed the design issues and Gunderson et al. (1984) discussed the results of the same study. The ambitious nature of the study lies in the investigators' attempt to assess a wide range of patient, therapist and therapy process variables.

As reported by Stanton et al. (1984), the study began with 95 nonchronic schizophrenics who had enough positive prognostic indicators to suggest that they might benefit from psychotherapy. It should be noted that the sample

population was more highly educated (44% had at least some college) and came from a higher social class (54% were above middle class) than is typical of schizophrenic patients. This selection bias probably reduced external validity. Diagnosis of schizophrenia had to be confirmed by a variety of diagnostic criteria. Effects of prior treatment were relatively minor; only 21% of the sample had had more than 2 weeks of prior therapy. One problem in the study was the relatively high attrition rate. Of the 95 patients who were in the study after six months of treatment, only 51 were still in the program at the two year termination assessment. However, an exhaustive analysis of the dropouts compared to study patients showed no more than a chance number of significant differences (6 of 105 comparisons were significant at the 0.05 level).

Stanton et al. (1984) reported that the therapists selected for this study (a total of 81) were sorted into two groups. The first group described their therapeutic approach with schizophrenics as exploratory and insight-oriented (EIO). The second group utilized a reality-adaptive, supportive (RAS) psychotherapy. The two groups of therapists differed significantly in how they defined the nature of change in therapy, the etiology of schizophrenia, and techniques used in psychotherapy. These differences seem to be consistent with their chosen therapeutic approaches. Additionally, the two groups of therapists

differed significantly in a number of self-attributed personality variables. The EIO therapists were less active, used less externalization, tended to be more grandfatherly, optimistic, composed, and more comfortable with patients' depression.

The broad differences in how the two groups of therapists described themselves was not uniformly reflected in examining therapy process variables. Stanton et al. (1984) obtained a large number of tape recordings of actual therapy sessions and then rated these recordings for 15 different process variables. These variables focused on both technique and direction within the session. Only five of the 15 variables differed significantly between the two groups of therapists. This outcome suggests that while these therapists claimed broad differences in theory and attitude, their actual conduct of therapy may not reflect their claims. The researchers acknowledged their disappointment over the many process similarities between the theoretically divergent therapies. As a result, it remains unclear whether differences in patient outcomes could be attributed to process variables or to therapist self-attributes. A rival explanation for outcome variance might involve the frequency of therapy between the groups. The EIO patients averaged about eight sessions per month, while the RAS patients averaged less than three sessions per month (significant difference at the $p < 0.001$ level).

In keeping with the exhaustive nature of their study, Stanton et al. (1984) developed 96 variables to assess patient outcome. These variables were further grouped into 15 clusters. The focus of the variables mostly involved symptoms, cognitive organization, patient attitudes, and social dysfunction. However, considering the breadth of these variables, it is unfortunate that the investigators failed to focus more on how well the patients were adapting to the posthospital environment.

In assessing outcome differences between the EIO and the RAS groups, Gunderson et al. (1984) were confronted with a vast array of data. They suggested that their analyses and choices of statistical methods were not exhaustive. However, their analyses yielded relatively few significant differences between the two groups. While both groups showed many areas of significant improvement over baseline levels, improvements were not generally based on group membership. The only areas of significant differences concerned the relative superiority of EIO in improving ego functioning, the relative superiority of RAS in improving occupational functioning, and the relative superiority of RAS in decreasing hospitalization time. The researchers pointed out that in assessing cost-benefit factors, these differences are highly important. However, whether these results would be maintained over longer periods of time is open to speculation.

## Effectiveness of Group and Family Psychotherapy

In many of the studies of individual therapy, various forms of group therapy (including family therapy) were utilized as a supportive adjunct to individual therapy. Research of group therapy as the primary intervention with schizophrenics is relatively sparse. Two reviews of the research on group therapy were conducted, one by Parloff and Dies (1977), and the other by Mosher and Keith (1980). The two reviews described nine different research studies conducted between 1966 and 1972. In general, the results were not highly supportive of group therapy. In four of the studies, group therapy failed to add any incremental benefit to the treatment packages. In two of the studies there were minor but inconsistent benefits from group therapy. In only three studies did group therapy provide a significant benefit across multiple outcome variables.

More recently, Doane et al. (1985) investigated the relative effectiveness of family therapy for schizophrenic patients. The researchers predicted that the affective style (AS) of the patient's family would be related to patient relapse rates and to other general measures of outcome. Thirty-six schizophrenic patients were divided randomly into a family treatment group and an individual therapy group. In order to utilize the family intervention, patient selection was somewhat unusual. Patients were restricted to those who had had a recent acute episode, were

not hospitalized, and who were either living with their parents or had close contact with their parents. The authors acknowledged the restricted nature of their sample and the questions of generalizability that arise from such restrictions. Additionally, in order to assess AS, each family consented to in-home observations by the research team.

Doane et al. (1985) rated the families' AS as negative or benign, based on the frequency of observed intrusive, guilt inducing, and critical comments. All AS assessments were conducted in the home by multiple observers with adequate interrater reliability of .85 (Pearson's coefficient). As to baseline, both treatment groups were similar in their AS patterns. Both treatment approaches involved once per week sessions for three months, followed by six months of every other week sessions. However, the individual therapy sessions were conducted at an outpatient clinic and were supportive in orientation, while family therapy was conducted in the home and focused on teaching problem solving methods. The authors acknowledged that the unusual step of doing therapy in the home may account for some of the effectiveness of their family therapy approach.

Outcome measures were assessed after three, six, and nine months of treatment. It was found that family treatment patients were rated as significantly more improved than the individual treatment group, as measured by relapse

rates and a number of social functioning scales. While pretherapy AS measurements failed to significantly predict relapse rates for either treatment group, the researchers did observe a strong relationship between relapse and a negative AS. They concluded that patients whose families exhibit a negative AS are most likely to benefit from family intervention.

In the study by Doane et al. (1984), another largely uncontrolled treatment variable was the use of antipsychotic drugs. In a conceptual paper on family therapy, Haley (1989) suggested that the use of antipsychotic drugs is counterproductive for the majority of schizophrenics. Instead, he argued for increased emphasis on family therapy for those who have a relatively positive set of prognostic indicators. Haley further averred that, with the widespread use of drug treatments, there has been a lessened interest in psychotherapy. As a result, he advocated the emergence of new training programs in the therapy of schizophrenics that would utilize family therapy approaches with a sharply reduced emphasis on pharmacological treatments.

In response to Haley (1989), Stein (1989) argued that Haley had minimized the biological components that exist in almost all schizophrenics. While Stein accepts psychological and social factors as important treatment considerations, he did not view these as complete in themselves. He argued that psychotherapy alone is not

sufficiently supported by the available literature. However, Stein failed to address Haley's fundamental claim that new forms of psychotherapeutic interventions need to be developed using a family therapy approach. Stein seemed more inclined to view current forms of therapy as adequate, while Haley had argued for significant changes.

## Summary and Conclusions

A current assessment of the effectiveness of psychotherapy with schizophrenics remains fairly congruent with the conclusions of Karon and Vandenbos in their 1981 review. In that review they stated: "If careful quality control of what it is that is called psychotherapy is maintained, psychotherapy is helpful for schizophrenic patients" (p. 471). Inherent in their conclusion is that psychotherapists must be committed to psychotherapy as a viable treatment option in order for it to be helpful. This commitment to psychotherapy is most clearly seen in three of the currently reviewed studies. The study by Carpenter et al. (1977) illustrates a group of therapists whose total commitment to psychotherapy extended to advocating either the elimination of or sharp reduction in pharmacological interventions. The favorable results of their work are perhaps the clearest example of the incremental benefits of psychotherapy with schizophrenics. However, their belief that long term drug therapy is potentially harmful remains

controversial and unproven (Davis et al., 1988; Leete, 1987).

The other studies that exhibit a high commitment to psychotherapy are those by McGlashan (1986) and Alamen et al. (1988). The study by McGlashan used patients that have historically been categorized as unlikely to benefit from psychotherapy. Despite the chronic characteristics of this population, psychotherapy was able to provide an incremental benefit for the patients for an extended period of time. In the study by Alamen et al. (1988), individual dynamically-oriented therapy with patients on low-level pharmacological programs was superior to several other forms of therapy. While the outcome assessment time frame in this study was not as lengthy as in McGlashan, the five year assessment was longer than most studies and emphasizes the relative durability of their results.

The study by Gunderson et al. (1984) comparing EIO therapy to RAS therapy is important in that it attempted to examine some practical aspects of psychotherapy. The researchers acknowledged that both insight therapy and supportive therapy are effective, but their results suggest that RAS type therapies may be more cost effective from society's perspective. However, whether patients would perceive RAS as more effective remains equivocal. Measures of outcome that focus on hospitalizations and work performance may generate significantly different results

compared to outcome measures that focus on intrapsychic factors. How to appropriately assess outcome remains difficult and complex.

There has been a maturing process in the research on psychotherapy with schizophrenics. While some of the ongoing research deals with fundamental questions of effectiveness, most of the research has shifted toward examining therapist and therapy variables and salient patient characteristics that influence the effectiveness of psychotherapy. The study of Glass et al. (1989) has represented an important beginning in attempting to examine the therapy process with schizophrenics. The 22 process variables that were selected probably reflect some bias toward a dynamic orientation, but they still can function as a basis for beginning to understand change factors in therapy with schizophrenics. The investigation of therapist variables (Gunderson et al., 1984) also adds some important data in understanding change factors. The importance of a therapist's interest in, and comfort with, intense affect appears to be a characteristic of the more effective therapist.

## Future Directions in Therapy

According to Beck et al. (1981), 85% of the schizophrenic patients receiving psychotherapy view the process as beneficial. Yet the various outcome measures

utilized to date suggest more modest levels of improvement. Improving psychotherapy effectiveness remains a crucial imperative for the future and one that is being addressed by a number of researchers. In a conceptual paper, Carpenter (1986) stressed the need for therapists to better understand how to effectively integrate various pharmacologic interventions into the psychotherapy process. Additionally, he stressed the importance of maintaining continuity with a primary therapist.

Ciompi (1988) has isolated a number of psychopathological disorders that constitute the full range of schizophrenic manifestations. Depending on the particular course for an individual patient, various combinations of these psychopathological disorders would be manifest. Ciompi suggested a specific optimal therapeutic intervention for each of these disorders. This perspective is provocative and deserves empirical investigation.

Feinsilver (1986) was a strong advocate of psychoanalytic psychotherapy with schizophrenics. In fact, he held that psychoanalytic therapy is the only form of treatment that can address the underlying causes of schizophrenia. However, he acknowledged as well that various supportive elements need to be integrated into an analytic approach in order to improve the relatively slow progress in what is essentially reconstructive therapy.

Improvements in therapy should also be matched by further work in identifying schizophrenics who are most likely to benefit from psychotherapy, such as the work modelled by Alamen et al. (1988), Fenton and McGlashan (1987), and McGlashan (1984). However, the studies of Westermeyer and Harrow (1984, 1986) suggest that work in this area is complex and still somewhat inconclusive.

## Future Directions in Research

In general, future research needs to focus on specific variables in an attempt to discover more robust elements that impact therapeutic effectiveness. Certainly the focus should shift from an investigation of main effects to an analysis of interaction effects. Main effects have appeared to be inconsistent because interaction affects have been poorly controlled. However, any future work will be impacted by issues related to diagnosis, course and outcome assessment.

Vaillant (1978a, 1978b) and McGlashan (1986) advocated outcome measures that assess four basic dimensions, including symptoms, social adjustment, employment and length of hospitalization. While these areas are fairly comprehensive, Blatt et al. (1988) inferred that a battery of psychological tests may be a better means of assessing outcome. As a result, he might refer to the studies by Stanton et al. (1984) and Gunderson et al. (1984) as

representing a useful step toward utilizing psychological instruments in assessment. Movement in this direction seems to coincide with Gendlin's (1986) suggestion that process and outcome measures need to be separated.

The issues of diagnosis and course in schizophrenia are perplexing and complex. Shapiro (1981) has identified 28 possible etiological components of schizophrenia, including the areas of genetics, biochemistry, neurophysiology, developmental failures, psychological factors, family influences and cultural influences. Given this extensive and varied causal base, it is likely that any description of the course of schizophrenia will need to consider many influences. Currently, the means to measure possible causal elements is either primitive or nonexistent. Researchers in the future need to investigate these components in order to provide more information for both the timing and the type of therapeutic intervention.

In addressing the issues of diagnosis and course, Andreasen and Olsen (1982) hinted that the current diagnostic subtypes that utilize phenomenological characteristics may not be able to identify the various etiologic subtypes. In this regard, Andreasen and Olsen make an analogy to syphilis, which has a single pathogenesis but with multiple manifestations of clinical symptoms. Until more meaningful diagnostic subtypes are identified, it is likely that future research will be confounded by the

influences of a heterogeneous mix of etiological components. Westermeyer et al. (1987) voiced a similar concern for future research. At least for the near term, he advocated more long-term outcome assessments in order to isolate meaningful subtypes.

Another potentially important area for future research was suggested by Gendlin (1986). He advocated collecting unquestionably successful psychotherapy cases. These cases could be analyzed in detail, and then compared to less successful cases. It is hoped that meaningful variables in the areas of patient selection and therapy process would come out of this analysis. The advantage of this approach is the abundance of this kind of data available currently. Refinements in diagnosis and etiology may be many years away, but work of this nature could be done now.

Analysis of unquestionably successful psychotherapy cases may also establish boundaries for intervention. There may emerge minimum levels of premorbid functioning, environmental support or interpersonal support that appear to be necessary conditions for significant changes through psychotherapy. Additionally, patterns of intrapsychic variables (as measured by psychological tests) might establish a functional floor for treatment decisions for psychotherapy candidates. A possible detrimental influence in prior assessments of psychotherapy effectiveness may be

the inclusion of treatment-resistant individuals who conceivably would respond poorly to any intervention.

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